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ABSTRACT

A continuum of "Protocols" has been derived. By way of definition three elements of what might be called an "instructional performance library" are 1) a collection of "protocol materials" (audiovisual renderings of behavior that is engaged in by instructional personnel); 2) a catalog of "protocols" (ways to use the materials); and 3) a communications network which allows the library to grow and be self-sustaining. Since the protocols considered here use protocol materials, the continuum is best viewed as one of audiovisual protocols. It is helpful to envision the total teacher training process as a macrocosm in which are embedded specific protocols or ways of going about training instructional personnel. The simple continuum of protocols here suggested ranges from the relatively unstructured to the highly structured: the illustrated lecture, large group, small group, brainstorming, buzz groups, standard supervisor-teacher relationship, collegial supervision, peer teaching, role playing, microteaching, mini-teaching, and model-making. This continuum is not completed or all-inclusive. The "structure" dimension is a complex one involving the amount, quality, and intensity of structure. The continuum also points up that structure carries comcomitant ramifications for administration, cost, and technical support systems. (Included is brief description of each of the 12 protocols and their use of protocol materials.) (JS)

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Protocols: A Continuum of Training and Re-training Formats

by

James C. Stone and David A. Bickimer

Over the years, within and without the profession, scholars have bombarded us with "breakthrough" teacher training programs, "breakthrough" training elements, and "breakthrough" training procedures. In the fifties, it was the teaching internship concept; in the sixties, microteaching and videotape feedback. Now, in the seventies, we seem to be making a long expected, but not yet achieved "breakthrough" in teacher education [1] through the notion of protocols. What is a protocol?

A protocol, by one definition at least, is a step-by-step procedure for training personnel. Examples are buzz groups, role-playing, microteaching, and the standard trainee-supervisor relationship. What's new in the notion of protocols is:

(1) A systems approach-the purposeful use of a number of protocols in a single training program.

(2) A continuum of protocols-progressing in a training program from protocols which are less structured and less complex to those which are more organized and more complex.

(3) The availability of a wide variety of published or packaged protocol materials.

(4) The possibility of collections of protocol materials in a national instructional performance library-thus providing a communications network which houses, evaluates and disseminates protocol materials and also encourages, assists, and monitors the creation of new protocol materials by inventive teacher trainers. [2]

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1. James C. Stone, Breakthrough in Teacher Education San Francisco: Jossey-Bass, 1969.
2. David A. Bickimer, "An Instructional Performance Library", Instructor Development I, 1, Oct.'69 (ERIC Microfiche, #ED 034 708).

The Training Process and Protocols

In Teachers for the Real World, [3] six elements of the teacher preparation process are identified:

(a) the establishment of the practice situation

(b) specification of behavior

(c) some performance of the specified behavior

(d) feedback on the performance

(e) modification of behavior in light of the feedback guaranteeing the inclusion of the process elements.

(f) establishment of a systematic schedule for elements a-e above.

There are other ways of listing the elements of an instructional development program. Thus, Harris and Bessent would list: 4

(a) participants' active involvement

(b) the simulation of the program

(c) the production of quantifiable data to delineate the participant's response

(d) feedback to participants to allow comparision of individual performance to a more universal performance

(e) discussion and analysis leading to generalizations and practical implications

(f) structured activity

(g) restricted focus

(h) freedom of response

(i) tension control

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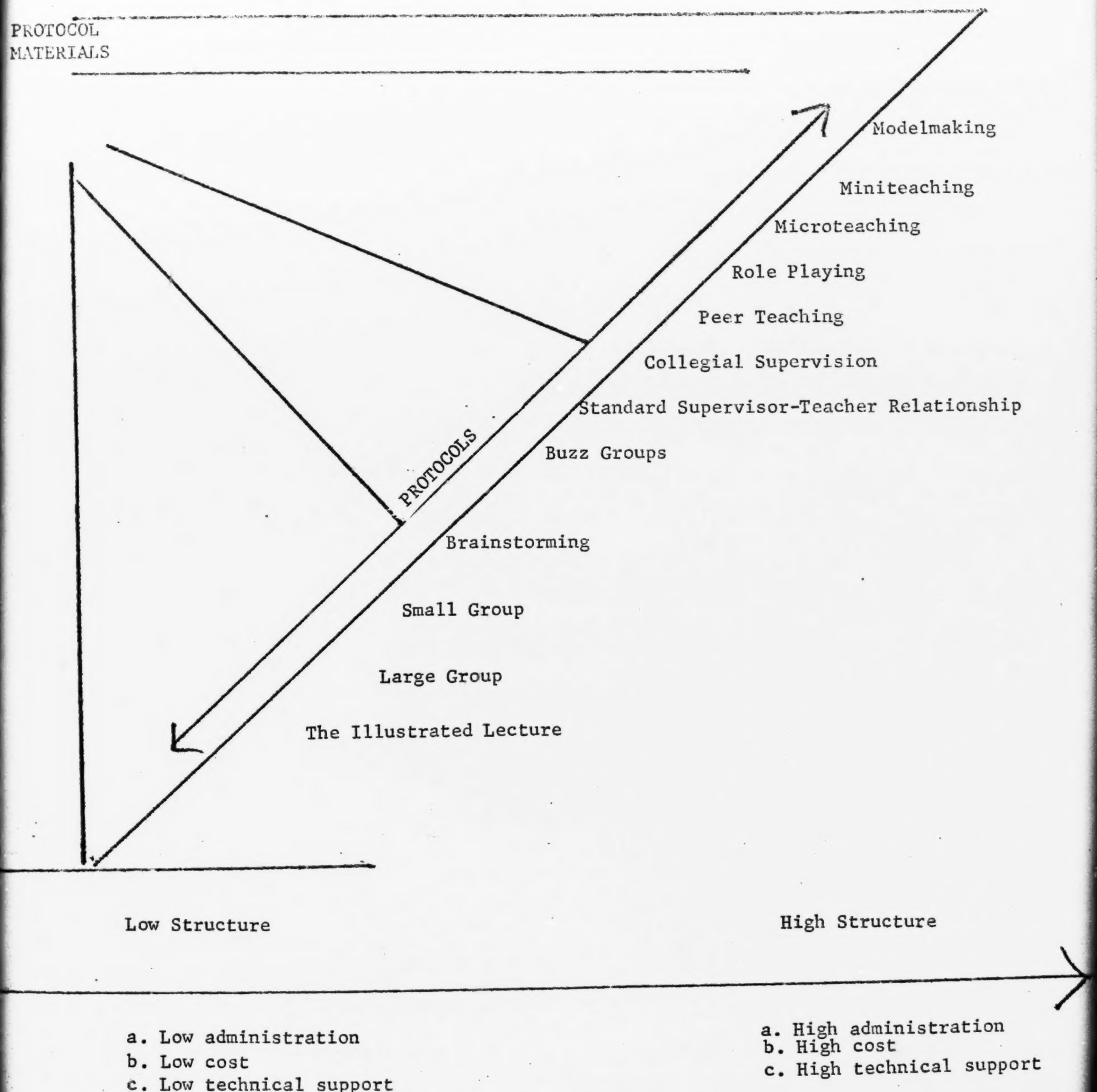
3. B. Othanel Smith, et al. Teachers for the Real World, Washington, D.C.: AACTE 1969, p. 71.
4. Ben M. Harris & Wailand Bessent in collaboration with Kenneth E. McIntyre, In-Service Education: A Guide to Better Practice, Englewood Cliffs: Prentice-Hall, Inc. 1969, pp. 45-49.

It can be seen, then, that scholars have been at work clarifying what constitutes the elements of a training program for teachers. The two lists of elements are notable, because they are published almost at the same time and their relationship is interesting. For the relationship between TFTRW's elements and IE's elements is that of the abstract to the concrete or, perhaps better, that of the analytical to the pragmatic. Placing the two lists in the same context yields a rather thorough view of a macrocosm called the complete training process in which the staff developer must dwell.

Only by stretching the term to the point of meaninglessness would one call the entire teacher preparation process a protocol. It is helpful, however, to envision the training process and its elements as the macrocosm in which specific protocols find their home. Envisioned in this way, then, protocols are specific ways of going about the training of staff, embedded in the more general process of preparation. Thus, for example, an internship teacher education program and all its elements can be viewed as a training process which could include such protocols as buzz groups, role-playing, microteaching, etc. Viewed in this way, protocols need not include all the elements of the training process. To a significant degree, however, protocols can be expected to include training process elements since they necessarily reflect the conditions of the broader milieu in

which they are found, (i.e. the training process). Protocols, then, will more or less embody the elements of the training process, i.e. they will be more or less structured and complex. As such they can be placed on a continuum moving from the low structure to high structure. Such a continuum is pictured below and a discussion of the continuum follows.

A PROTOCOL CONTINUUM



a. Low administration
b. Low cost
c. Low technical support

a. High administration
b. High cost
c. High technical support

Some comments on the above continuum seem in order as are some descriptions appropriate to it.

Sources of the Continuum

First, the continuum is derived largely from ideas suggested by a number of developments and developers who are still contributing to the recent ferment in staff development across the nation. Certainly the debt owed to Smith, Harris, Bessent, and McIntyre is evident. In addition, the work of the Stanford Research and Development Center in Teaching under Bush and Gage and the contribution of the Far West Regional Laboratory under Hemphill are obvious.

It can also be noted that, being multi-media oriented, all the protocols have embedded in them the use of protocol materials defined here as audiovisual renderings of instructional performance. Furthermore, the continuum is not, of course, complete or all inclusive. Anywhere along the line, another protocol might be inserted depending upon the extent and intensity of its structure.

Structure as Complex

It is to be noted that, while the continuum speaks to the "structuredness" of the protocol, structure itself is not a simple dimension. It is,rather, complex and itself admits of at least three elements, viz. the amount of structure, the quality of structure, and the intensity of structure. Because of this complexity, no protocol can be assigned a definite place on the continuum but rather only a general area. This is to say that a buzz group, for example, may or may not be more structured than a brainstorming session. In general, it would be, but depending on the amount, quality, and itensity of structure of the one protocol relative to the other in actual practice, the positions of the two protocols could be reversed although both would stay in the same general vicinity on the continuum.

Structure, Administration, Cost, and Technology

The continuum also points up that structure carries concomitant ramifications for administration, cost, and technical support systems. It is clear that the administration required to effect an illustrated lecture is considerably less than the administration required to set up a model making protocol. It is also clear that lower administration means, in general, lower cost and higher

administrations means higher cost. This is only to say that as one progresses up the continuum, the allocation of space, time facilities, and personnel increases so that the cost of the protocol generally speaking, increases.

It is clear that all that is needed by way of technical support for an illustrated lecture is a projector and a blank wall whereas modelmaking requires a complete videotape/film support system ranging from recorder to monitor and including a camera or two, not to mention the technical support services and personnel which can be called into play in the ideal situation. Obviously, however, audiovisual feedback equipment can be brought into play anywhere along the continuum.

Drawbacks of the Continuum

By way of final commentary on the continuum as herein presented, two of its drawbacks need explication. First of all the continuum does not speak to that which gives substance to any educational venture, viz. the purposes of the venture. Thus, it is all well and good to wax long and eloquently on miniteaching, or large group discussion and all the subtleties involved therein, but it is quite another to realize the sobering truth that no protocol is worth its salt until it is given meaning with a sound, respectable, well thought out purpose. And just

as protocol materials may be appropriate to any number of different protocols, so too may a specific educational purpose be served in any number of protocols. And it is humbling to note that linking certain protocols with certain purposes is a task for the future.

The second drawback of the continuum (and of the descriptions of protocols which follow) is the phenomenon which Whitehead termed the "fallacy of misplaced concreteness" wherein concepts are reified to the detriment of scientific progress. In the specific case of the protocol continuum it is tempting to pick one or two protocols and forget they are but an element in a macrocosm called the training process. It is also tempting to choose one protocol like one chooses a horse and ride it to death or to ultimate victory- over what or whom one is never sure. All of us know, for example, programs in which microteaching and minicourses have flourished into God-like panaceas! Thus, a protocol like the standard teacher-supervisor process can be reified, as it were, into a thing whose proportions simply do not match the facts of the case. The same could be said for the "reification" of "sexier" protocols like peerteaching or microteaching. The danger is that by their very placement on a continuum and by their very description they thereby become <u>the</u> reality. Caution, then, is called for

to see the macrocosm of the training process as the reality and protocols as aspects and parts thereof which, far from standing alone, are intimately interrelated and mutually self-supporting.

Protocol Descriptions

There remains for purposes of this discussion to delineate in some small way some characteristics of the protocols which appear on the continuum.

The Illustrated Lecture

There is no sense in taking the risk of articulating the obvious-- to describe an illustrated lecture may be taking such a risk. Nevertheless, if this protocol is all that obvious, why is it not used more frequently? The inclusion of published, packaged, or individually created protocol materials into a standard lecture can put flesh on dry theoretical bones. And so, a five minute vignette of a "Mr. Novak" in action with an irate parent might very well tip the balance from ennui to interest in a lecture presenting a role-conflict model such as that of Getzels as it is applied to school setting.

Large and Small Groups

Do we articulate the obvious again here? Perhaps, but too few training programs use large and small groups

in a deliberately planned, sequential way. In most programs, grouping for teaching purposes is happenstance. An example of deliberate structure is evident in the implemention of "the spiral curriculum". [5] In this curriculum, trainees are assigned into small, heterogeneous (subject-matterwise) groups. These small groups are "nuts" and bolts" seminars in which the materials for discussion are the teaching problems drawn from the trainees' teaching experience. They are systematically preceded and followed by large group seminars which pump in new concepts, principles, and theoretical considerations.

To complete the system, homogeneous small groups are intermingled to consider curriculum problems in specific teaching and subject fields. Such systematically programmed large and small group activities really enter the twentieth century when these activities are enhanced with audiovisual protocol materials.

Brainstorming

A small group activity, brainstorming is often construed as being more structured than just discussion because parameters of time are imposed and greater urgency is added to the situation by the challenge of getting all the ideas out in the open. Protocol materials in such a protocol trigger greater, more salient ideas in such sessions.

5. James C. Stone & Clark N. Robinson, The Graduate Internship Program in Teacher Education: Berkeley Calif. The University of California Press 1965.

Buzz Groups

As construed here, a buzz group is a small group activity with temporal parameters and with the added structure of specific questions (usually four or five) inserted into the protocol. The questions can be asked many ways but certainly one way to ask them would be through the embedding of protocol materials into the step-by-step process. For example, a five minute clip of a teaching technique such as role playing will make more meaningful and viable such "buzz" questions as:

a. Is role playing at home equally in elementary and secondary schools?

b. Is role playing more effective with middle class or lower class students?

c. Can role playing be utilized in mathematics as well as in social studies?

d. Is role playing a technique more appropriate for comprehension rather than appreciation?

Supervisor-Teacher

In this protocol the supervisor usually observes the teacher, critiques the teacher and provides feedback to him. Around this general step-by-step process, there can be arranged a great number of other steps. In this protocol, protocol materials can be effectively used for a variety of purposes. Among the purposes to be served are

a) the focusing of a teacher's (and supervisor's) attention on a specific aspect of the instructional act, b) the positing of a model for emulation or a model to be excelled and c) the introducing an "objective third" between supervisor and teacher to remove some aspects of the " subjective" side of this protocol which can hinder communication.

Collegial Supervision

Much the same can be said about collegial supervision as an audiovisual protocol as was said about the standard supervisor teacher relationship above. In this case, however, one person as supervisor is replaced by two or more of the teacher's fellow colleagues. The meaning of the whole situation is similarly transfigured by the protocol materials.

Peer Teaching

In this protocol, the teacher instructs his own peers in an effort to improve his own teaching. Thus a department meeting can be "taught" by one of its members with special attention given to improving some aspect of the performance which aspect can be"boned-up" through the use of protocol materials. Or several weeks of an organized preservice or inservice training program can be built on peerteaching, using protocol materials as models. Thus, for example, a five minute training clip on a particular

questioning skill is viewed, discussed and analyzed by teachers. Each trainee is assigned to prepare a lesson of his choice involving the use of the skill. In the subsequent training session the teachers are divided into groups of five and he teaches his lesson and has it critiqued by his peers. The protocol material can be reviewed again for summation or for additional practice or the group can move on to another skill, using another set of protocol materials.

Role Playing

In this protocol, one teacher instructs while her peers play the role of students. Protocol materials are easily and meaningfully inserted at sensible places in the step-by-step process. This protocol can effectively be combined with peer teaching and the same protocol materials described above can be used.

Microteaching

Three definitions of microteaching are evident. One is the very broad definition which amounts simply to using a videotape system usually for feedback. A second definition of microteaching alludes to it as the analysis of the teaching act into its component parts -- usually but not necessarily instructional skills. The definition used here is, however, that of the early researchers at Stanford University.

Briefly, microteaching is a reduced amount of teaching concentrating on some aspect of the teaching performance which is studied, attempted, critiqued and performed again until a satisfactory performance level is achieved. The practice situation calls for five different students each time the attempt is made. A supervisor is also present. Obviously protocol materials can make this protocol more significant with their insertion into the study-steps of the protocol or with their inclusion as models.

Miniteaching

An outgrowth of Stanford's microteaching, miniteaching replaces the supervisor with a videotape feedback system and protocol materials are used as models. The teacher evaluates her own performance by comparing the protocol model to video feedback. In one type of minicourse, teachers view a model tape-- usually of 20-30 minute duration-- and then sign up to work in groups of 4-5. Each is given technical instruction in how to video tape and set of equipment is given to each group. Next, the teachers try out the technique or strategy illustrated by the audiovisual protocol material on a small group of students, and each one teaches his own class using the special skill or strategy, videotaping himself at the same time. He then views his own tape, and depending on how he feels about the results, he may re-examine

the protocol model, retape himself, invite his peers to view his original or subsequent tape or ask them to observe his reteaching act. The ideal end is attained when the teacher produces a tape that her peers evaluate as worthy of export thus raising it to the level of new protocol material.

Modelmaking

At the end of the continuum (and therefore the most structured protocol), modelmaking is actually a training format which aims to create more protocol materials, like the end-product possible in the mini-teaching example described above. Thus, original protocol materials are introduced as models to be emulated or excelled and the trainee is encouraged to make his own audiovisual rendition of the performance aspect in question. This trainee-produced rendition can be compared to the protocol materials. This "new" model itself can then, in another instance of the same protocol, become protocol material. Assumed here is a definition of protocol material as being audiovisual material inserted into protocols that is not produced within the specific "occasion" of the protocol.

Conclusion

Three elements of what might be called an Instructional Performance Library are: a) the protocol materials or audiovisual materials which are in the "collection", b) a "catalogue" of ways to use the

materials which ways are dubbed protocols, and c) a communications network which allows the library to grow and to be self-sustaining. This discussion has looked more closely at the "catalogue" of ways to use protocol materials and has suggested a continuum of protocols ranging from the relatively unstructured to the highly structured. Arrayed in this light, protocols can be seen to abound. With further thought along these lines, the continuum can hopefully be expanded, thus offering staff development personnel more and more alternatives as they go about their task of upgrading the quality of instruction in schools.

In addition, the continuum might become the object of some hypothesizing. For example, are certain educational purposes served more effectively by more or less structure? At which end of the continuum would one expect to find purposes served which speak to goals such as self-knowledge or attitude change in the trainee: where would one look for skills acquisition? Further, where, along the continuum, would one start work with his own staff? If these questions are meaningful, then, perhaps, the continuum has meaning.